

*We show how to reconcile
renewable energy production in the Alps
with biodiversity
and landscape conservation*



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The recharge.green project brings together organisations and institutions from very different areas, such as research and development or public administration, with areas that often come into conflict with one another, such as nature conservation and energy production. The project partners and observers have agreed to seek solutions for the sustainable use of renewable energies in the Alps.

Austria: Environment Agency Austria | Institute for Geography, University of Innsbruck | International Institute for Applied Systems Analysis | Regional Development Vorarlberg Research | Institute of Wildlife Ecology _ **France:** Mountain Institute _ **Germany:** Bavarian electric power company | International Commission for the Protection of the Alps CIPRA _ **Italy:** European Academy of Bozen/Bolzano | Maritime Alps Nature Park | Region of Veneto, Office for Economics and the Development of Mountain Areas _ **Slovenia:** Agricultural Institute of Slovenia | Department for forestry and renewable forest resources, University of Ljubljana | Slovenia Forest Service | Triglav National Park _ **Switzerland:** Agroscope – Swiss research into agriculture, nutrition and the environment

BALANCING ALPINE ENERGY AND NATURE

The Alps have great potential for the use of renewable energy. Thereby they can make a valuable contribution to mitigating climate change. This, however, means increasing pressures on nature. What could be the impact of such changes on the habitats of animals and plants? How do they affect land use and soil quality? How much renewable energy can reasonably be used? The project recharge.green brings together 16

partners to develop strategies and tools for decision-making on such issues. The analysis and comparison of the costs and benefits of renewable energy, ecosystem services, and potential trade-offs is a key component in this process. The project will last from October 2012 to June 2015 and is co-financed by the European Regional Development Fund in the Alpine Space Programme.



locate and develop

Where does the Alpine space offer opportunities to produce energy from wind, water, forest biomass or solar power? Which areas are particularly valuable for their diverse landscapes and fertile soils and should therefore be used for purposes other than energy production? The recharge.green partners use models to find optimal and sustainable tradeoffs between ecosystem services. They develop innovative strategies and tools to permit politicians and energy producers to make decisions regarding the use of renewable energy sources.

As a first task the recharge.green experts will assess the status of renewable energy production in the Alpine countries. Subsequently, they will use scenarios to identify where other renew-

able energy sources can be used and where this might conflict with nature conservation and environmental protection. The aim is to use this knowledge to develop a new tool for decision-makers, permitting politicians and energy producers to make sensible decisions in economic and ecological terms to enable optimum land use. If an area is particularly important for species diversity, preserving this value will be taken into consideration in the production costs for renewable energies. Decision-makers can then draw up plans suited to their situation.

The recharge.green project thus shows how renewable resources can be used and the precious diversity of life forms in the Alps preserved on a long-term basis.

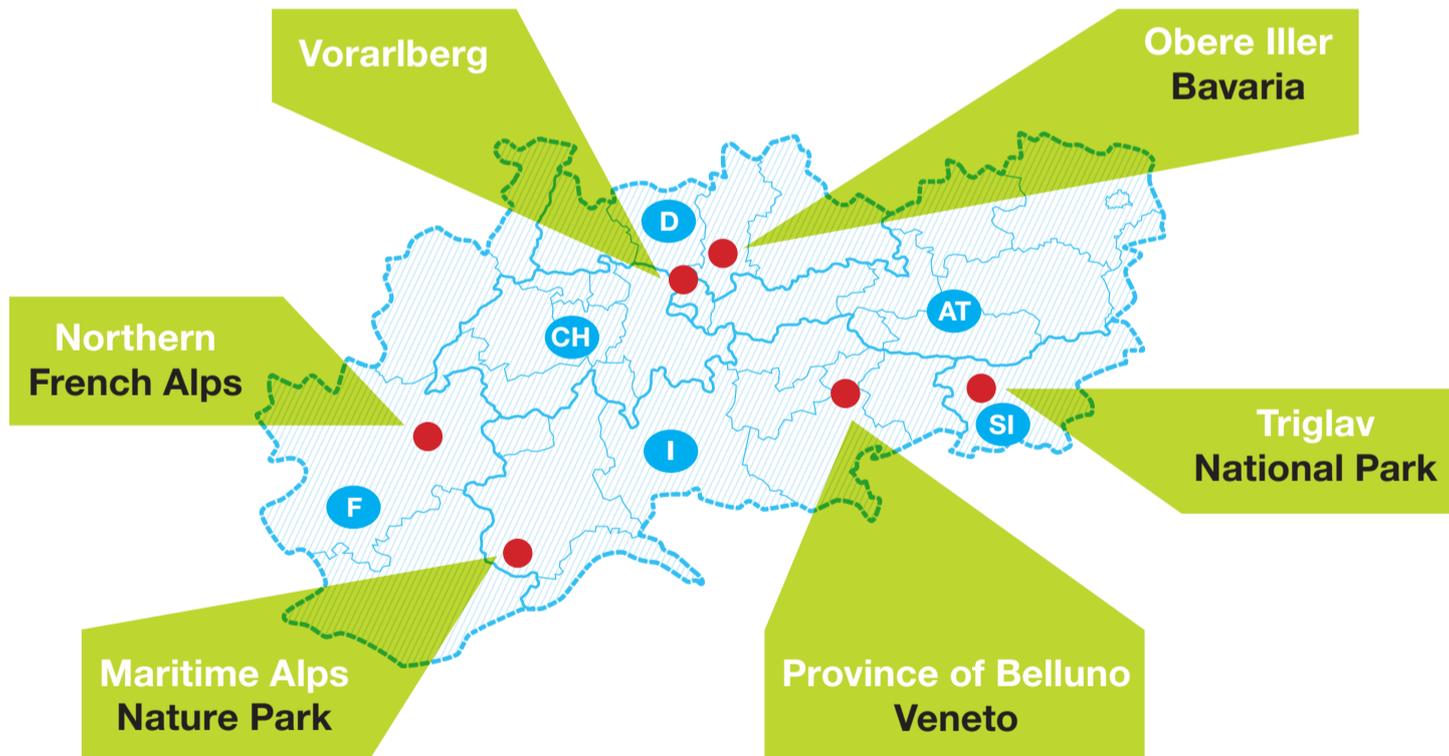
implement and improve

The recharge.green project partners want to ensure that the results can be put into practice and have therefore selected six pilot areas where strategies and models can be tested. The pilot areas have geographical, ecological and social characteristics that affect these activities.

The Triglav National Park in Slovenia is focusing on the sustainable use of wood biomass, with the project partners verifying availability and the level of woody biomass demand. The Maritime Alps Nature Park in Italy will be doing likewise, as well as examining the effect of hydropower plants on species diversity in its waters. The German project partners will investigate the sustainable use of hydropower on the River Iller in Bavaria, for instance by improving existing structures to better protect fish populations. Hydropower

is also a priority in the Province of Belluno in the Italian Veneto, and in the Northern French Alps. Finally, the Austrian pilot area Vorarlberg is examining how natural energy sources can be used without negatively affecting biodiversity and the connectivity between habitats of animals and plants.

The pilot areas are using the tools and models developed by the project, and testing their transferability to other Alpine regions. They communicate the results to interest groups at local and regional levels as well as to the general public. The experiences in the pilot areas will help the recharge.green experts to optimise their results. The goal will be achieved if as a key step towards sustainability a basis is created for harmonising renewable energy production and nature conservation in the Alps.



inform and request

The recharge.green project aims to raise the awareness of energy producers, politicians, consultants, authorities, NGOs and young people on how to meet the demand for renewable energies without causing damage to nature. recharge.green experts contribute their knowledge to the decision-making processes regarding the requirements of a careful use of natural resources. The project organises international conferences, training and implementation workshops on this topic. In the six pilot areas and at other locations recharge.green informs people about the current state of developments and the project results. The events are aimed at stakeholders from the worlds of politics, nature conservation

and energy production, as well as beyond the Alpine space, for instance at workshops in Budapest and Barcelona with representatives from the Carpathian and Pyrenees mountain regions in 2014 and 2015.

The project partners will publish a results handbook to explain to decision-makers how they can effectively implement the strategies and requirements arising from the project: the project shows that renewable energy production and nature conservation are compatible. "This international study can and should help us in decision making", says Councilor Erich Schwärzler from Vorarlberg, one of the project observers.